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| 09/622,087      | 10/03/2000  | Rob Pieterse         | 00575/LH            | 6649             |

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EXAMINER

LAM, DANIEL K

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2667

DATE MAILED: 08/10/2004

16

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/622,087

**Applicant(s)**

PIETERSE ET AL.

**Examiner**

Daniel K Lam

**Art Unit**

2667

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 11-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-14 and 17-21 is/are rejected.
- 7) ☒ Claim(s) 15 and 16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

DETAILED ACTION

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 11-14 and 17-21** are remain rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,241,542 issued to Natarajan et al. in view of U. S. Pat. No. 5,657,317 issued to Mahany et al.

Regarding **claims 11 (new)**, Natarajan et al. discloses a method for transmitting data from several first stations to a second station, the first and second stations each comprising at least a transmitter, a receiver, a control unit, and a clock (see fig. 3 references 54 and 62 and col. 3, line 7-21), comprising:

- Transmitting, in a selection time slot of the time window, selection messages from the second station to selected first stations (see fig. 4 references AH and BH, and col. 4, lines 39-53, and col. 5, lines 4-19).
- Transmitting, in response time slots of the time window, data from selected first stations to the second station (see fig. 4 reference BH, Header for period B, and col. 4, lines 34-35).
- Deactivating the receivers of the first stations at the end of the selection time slot (see fig. 8A references 86, 90, and 94, and col. 8, lines 14-39).

- Each first station, to which a selection message corresponding to that first station has been transmitted by the second station, deactivates its receiver as soon as the corresponding selection message is received by the first station before the end of the selection time slot (see fig. 8A reference SLEEP\_DURATION, and col. 8, lines 14-39; fig. 8B reference SLEEP\_DURATION, and col. 8, line 47 to col. 9, line 6).

However, Natarajan et al. does not disclose the limitations of transmitting, in a synchronization time slot of a time window, a synchronization message from the second station to the first stations.

Mahany et al. discloses a frame structure having a synchronization slot (see fig. 2 reference 201, SYNC and col. 15, line 66 to col. 16, line 2) for sending synchronization message to synchronize remote and base stations.

Therefore, it would have been obvious to those having ordinary skill in the art to include in a synchronization slot for transmitting synchronization message, selection messages, deactivating the receivers of the first stations at the end of selection time slot, transmitting data from selected first stations to the second station in the response time slot, and deactivating each first stations receivers as soon as the corresponding selection message is received by the first station before the end of the selection time slot for a key reason. By transmitting the synchronization message from the second station to the first stations, the constituents of the network can be synchronized before actually exchanging data as taught by Mahany et al. (see col. 16, lines 2-23).

Regarding **claims 12 (new) and 13 (new)**, in addition to disclose the limitations in claim 11 discussed earlier, Natarajan et al. further discloses the selection

messages are transmitted in a predetermined sequence and the deactivation takes place based on the sequence (claim 12) and several sequences are applied and a sequence indication of the sequence to be applied in specific time window is transmitted by the second station in the synchronization time slot (claim 13). See fig. 8A references 84 and RLIST, and col. 8, lines 26-29, and fig. 8B references 100 and TLIST, and col. 8, lines 61-64.

Regarding **claim 14 (new)**, in addition to disclose the limitations in any one of claims 11 to 13 discussed earlier, Natarajan et al. further discloses the selection message each contain a time indication of the response slots (see fig. 8A references 88 and My Position in RLIST, and col. 8, line 67 to col. 9, line 32-36; and fig. 8B references 104 and My Position in TLIST, and col. 8, line 67 to col. 9, line 4).

Regarding **claim 17 (new)**, in addition to disclose the limitations in any one of claims 11 to 13 discussed earlier, Natarajan et al. further discloses the transmitter of each first station is activated only during respective response time slot (see fig. 8B references 108 and 110, and col. 9, lines 2-4).

Regarding **claim 18**, in addition to disclose the limitations in any one of claims 11 to 13 discussed earlier, Mahany et al. further discloses the duration of a current time window is transmitted to the first stations by the second station in the synchronization time slot (see col. 15, lines 35-39).

Regarding **claim 19 (new)**, in addition to disclose the limitations in any one of claims 11 to 18 discussed earlier, Natarajan et al. discloses the system comprising:

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- First stations, each having a first transmitter, a first receiver, a first control unit and a first clock; and a second station having a second transmitter, a second receiver, a second control unit and a second clock (see fig. 3 references 54 and 62 and col. 3, line 7-21).
- The first stations and the second station are arranged to communicate with each other in a time window (see fig. 4, timeslots within periods A, B, and C).
- The second station is further arranged for transmitting selection messages in a selection time slot, the selection message in a selection time slot, the selection message indicating first stations; and the first stations are further arranged to receive the selection messages (see fig. 4 references AH and BH, and col. 4, lines 39-53, and col. 5, lines 4-19).
- The first station are further arranged to transmit data to the second station in response time slots of the time window according to the reception of the selection messages corresponding with the first stations (see fig. 4 reference BH, Header for period B, and col. 4, lines 34-35).
- The first stations are further arranged to deactivate their receiver at the end of the selection time slot (see fig. 8A references 86, 90, and 94, and col. 8, lines 14-39).

Mahany et al. discloses:

- The second station is arranged for sending a synchronization message to the first stations in a synchronization time slot of the time window and the first stations are arranged for receiving the synchronization message and synchronizing their clocks

based on the synchronization message (see fig. 2 reference 201, SYNC and col. 15, line 66 to col. 16, line 2).

Regarding **claims 20 (new) and 21 (new)**, Natarajan et al. discloses a local station:

- Comprise a transmitter, a receiver, a control unit and a clock (see fig. 3 references 54 and 62 and col. 3, line 7-21).
- Arranged to receive, in a selection time slot of the time window, a selection message from the second station (see fig. 4 references AH and BH, and col. 4, lines 39-53, and col. 5, lines 4-19).
- Arranged to deactivate the receiver at the end of the selection time slot (see fig. 8A references 86, 90, and 94, and col. 8, lines 14-39).
- Arranged to transmit data to the second station, in a response time slot of the time window (see fig. 4 reference BH, Header for period B, and col. 4, lines 34-35).
- The measuring station is arranged to deactivate its receiver as soon as the corresponding selection message is received, before the end of the selection time slot (see fig. 8A reference SLEEP\_DURATION, and col. 8, lines 14-39; fig. 8B reference SLEEP\_DURATION, and col. 8, line 47 to col. 9, line 6).
- The transmitter of each first station is activatable only during respective response time slot (claim 21) (see fig. 8B references 108 and 110, and col. 9, lines 2-4).

Mahany et al. discloses:

- Arranged to receive in a synchronization time slot of a time window a synchronization message from a second station (see fig. 2 reference 201, SYNC and col. 15, line 66 to col. 16, line 2).

***Allowable Subject Matter***

3. **Claims 15 and 16** are objected to as being dependent upon a rejected base claims, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

4. Applicant's arguments filed on 5/24/2004 have been fully considered but they are not persuasive.
5. Regarding the remarks related to claim 11 (see page 13, lines 4-5, and page 14, lines 4-5) that "[...] Natarajan et al teach that the receivers of the first station remain on during the whole selection time slot BH" and "Mahany et al [...] deactivates it receiver as soon as the corresponding message selection message is received [...]", in fact, Natarajan et al not only teach turning the receivers on and off in order to save power, they also teach the transmitter should be turned off if there is nothing to send. Furthermore, they also teach that "[a] desirable solution is one in which the transmitter (or receiver) consumes power only when it is actively transmitting a message (or actively receiving a message)". See col. 4, lines 3-6.



***Contact Information***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel K. Lam whose telephone number is (703) 305-8605. The examiner can normally be reached on Monday-Friday from 8:30 AM to 4:30 PM.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (703) 305-4378. The fax phone number for this Group is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4700.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status Information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DKL *abl*  
August 7, 2004



CHI PHAM  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600

*8/9/04*

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